

M×N Optical Switch

Features

- Low Loss and High Reliability
- Parallel Interface (TTL)
- Modularized Design
- Epoxy-free on Optical Path



Applications

- Ring Network
- Remote Monitoring in Optical Network
- Testing of Fiber, Optical Component

M×N Optical switch is a kind of functional component, with the ability of switching optical route. In optical fiber transmission system, it is used for multi-channel fiber monitoring, multi light source/ detector selection, and optical fiber path protection etc. Besides, it is also used in optical fiber test system for optical fiber and its component test, outdoor cable test and multi-spot optical sensors monitoring system.

Specifications

Parameters	Unit	FSW-M×N	
Wavelength Range	nm	850±40 / 1300±40	1260 ~ 1650
Test Wavelength	nm	850 / 1300	1310 / 1550
Insertion Loss	dB	Typ: 1.2 Max: 1.5	
Return Loss	dB	MM ≥ 30 SM ≥ 50	
Crosstalk	dB	≥ 55	
PDL	dB	≤ 0.05	
WDL	dB	≤ 0.25	
TDL	dB	≤ 0.25	
Repeatability	dB	≤ ±0.05	
Durability	Cycles	≥ 10 Million	
Switching Time	ms	≤ 10 (Sequence switch time of adjacent channel)	
Optical Power	mW	≤500	
Operating Temperature	℃	-20 ~ +70	
Storage Temperature	℃	-40 ~ +85	
Relative Humidity	%	5 ~ 95	
Dimension	mm	135×95×32 (M≤3, N≤16)	

Pin Configurations

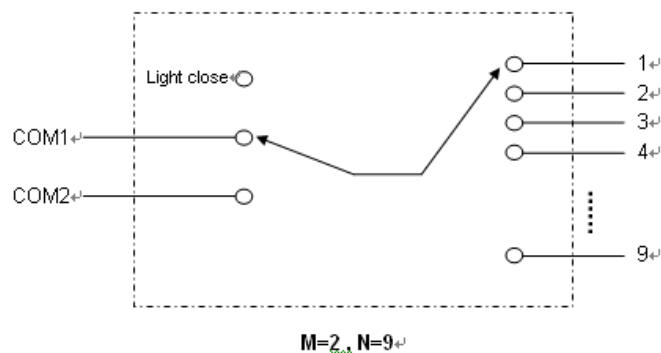
DB-9 male connector (M≤3, N≤16)

Pin No.	Signal Name	I / O	Description
1	A0	Input	TTL, Input Channel selection bit 0
2	A1	Input	TTL, Input Channel selection bit 1
3	D0	Input	TTL, Output Channel selection bit 0
4	D1	Input	TTL, Output Channel selection bit 1
5	D2	Input	TTL, Output Channel selection bit 2
6	D3	Input	TTL, Output Channel selection bit 3
8	GND	Input	Ground
7, 9	VCC	Input	5.0±5% VDC Power Supply (max 800mA)

Channel Selection Table

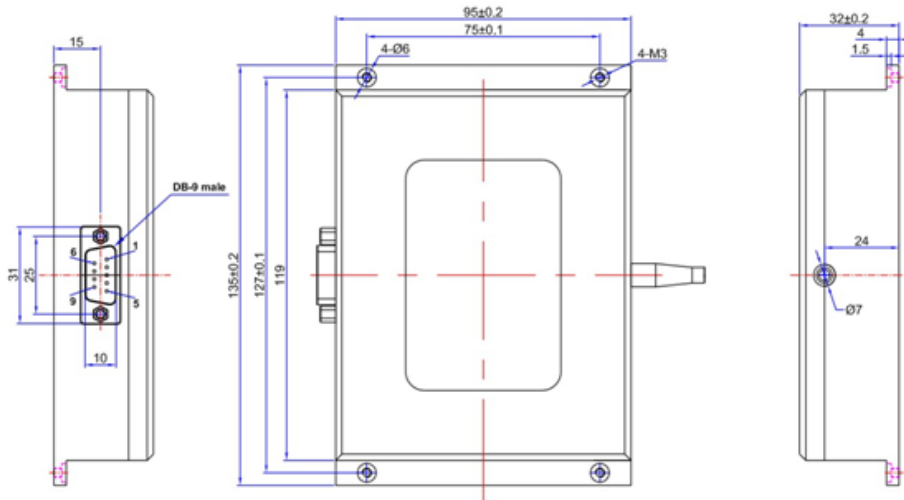
M = 2			N = 9				
A1	A0	Active Channel (Input)	D3	D2	D1	D0	Active Channel (Output)
0	0	Light close	0	0	0	0	1
0	1	COM1	0	0	0	1	2
1	0	COM2	0	0	1	0	3
1	1	Hold	0	0	1	1	4
			0	1	0	0	5
			0	1	0	1	6
			0	1	1	0	7
			0	1	1	1	8
			1	0	0	0	9
			Others				Hold

Optical Route



Dimension

➤ 01: 135×95×32-DB9-CF (M≤3, N≤16, DB-9 male)↵



Ordering Information: FSW-M×N-A-B-C-D-E

M,N	A	B	C	D	E
Channel	Fiber Type	Test Wavelength	Tube Type	Fiber Length (Include connector)	Connector
M, N=	SM: SM, 9/125	850: 850nm	90: 900um	05: 0.5m±5cm	OO: None
1	M5: MM, 50/125	1310: 1310nm	20: 2.0mm	10: 1.0m±5cm	FP: FC/PC
2	M6: MM,	1550: 1550nm	30: 3.0mm	15: 1.5m±5cm	FA: FC/APC
3	62.5/125	1310/1550:1310/1550nm	X: Others	X: Others	SP: SC/PC
...	X: Others	X: Others			SA: SC/APC
					STP: ST/PC
					STA: ST/APC
					LP: LC/PC
					LA: LC/APC
					X: Others